

11-3: Factoring Special Cases

Factoring:

1.

2.

3.

4.

Example 1: Factor.

a. $12x^2 - 4x$

b. $15x^3y + 5x^2y^2 - 35xy^2$

Binomial Square Factoring:

We need to start out with a perfect-square trinomial, which is obtained by squaring a binomial. There is a definite pattern to a perfect-square trinomial:

First term:

Last term:

Middle term:

Example 2: Factor.

a. $9x^2 + 12x + 4$

b. $x^2 - 6x + 9$

c. $y^2 - 20y + 100$

d. $x^2 + 7x + 14$

Difference of Squares Factoring:

The difference of squares sounds exactly as it is named:

Example 3: Factor.

a. $64x^2 - 81$

b. $r^2 - 121$

c. $y^2 + 100$

d. $25x^4y^6 - 36z^8$

e. $x^4 - 16$

Homework:

"You must be the change you wish to see in the world." - Mahatma Gandhi